

PRIMARY CARCINOMA OF THE BODY OF THE UTERUS.

A CLINICAL STUDY.

M. D. THESIS

by

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At the present time when so much thought and money are being expended on Cancer research, a study of Primary Carcinoma of the Body of the Uterus seems a pertinent subject for a thesis. It has been called a Clinical Study because it is written from the point of view of the general practitioner, whose lot it is to meet with cases of Uterine Cancer in their earlier stages - we cannot say earliest because even he is often not consulted when this is the case - and on whom rests the great responsibility of diagnosing the true nature of the dire disease.

Cancer, it has been truly said, is still one of the blackest - may we not say the blackest - spot in the whole field of medicine. It is common and there is good reason for thinking that it is becoming commoner. We have no knowledge of the cause of Cancer and therefore we can do nothing to prevent it.

Cancer of the uterus is the one part of this black patch, which, by comparison with the rest, might be said to be grey. In most parts of the body the cancer has early diffused itself through the lymphatic system so extensively that removal of the main mass and as much of the infected lymphatic system is not the removal of the whole disease. But when cancer begins in the uterus the lymphatics, as we

will point out when describing the mode of extension, are not affected till late, usually not until the disease has advanced by direct extension into parts adjoining the uterus, and hence the greater the hope we have of eradicating the whole disease and prolonging, if not altogether saving the life of our patient.

The clinical material for this paper has been collected at the Samaritan Free Hospital for Women - London, where I have been acting Clinical Assistant under Dr. F.J. McCann who has very kindly placed his cases at my disposal.

It is only within recent years that it has been shown that Carcinoma of the Body of the Uterus can be a primary disease. Formerly it was held by the leading authorities, among whom I would mention Rokitansky¹, Dr. Walche², Sir Charles Clarke³, and Dr. Francis Ramsbotham⁴, that cancer of the uterine body was secondary to that of the cervix. They believed that the latter was always the seat of the primary disease. It was in reply to that view that the late Sir J. Y. Simpson⁵, said "I have seen a considerable number of instances in which carcinomatous disease when affecting

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1. Rokitansky "Manual of Path. Anatomy, Vol. 2. p.300
 2. Walche "The nature and treatment of Cancer" p.96.
 3. Clarke " Diseases of females." p.207.
 4. Ramsbotham "London Medical Gazette 1835, p. 466.
 5. Simpson "The Obstetric Memoirs and contributions edited by Priestley and Storer, Vol. 1. p.193.

The uterus has primarily sprung up in the cavity of the organ or in the walls of the fundus or body, and in which the tissues of the cervix have remained sound to the last or at most been only affected secondarily." His observation has been proved to be correct by future workers among whom may be mentioned the late Dr. Matthews Duncan⁶, and Sir John Williams⁷ in our country, Dr. Cullen⁸, in America, and by the leading French and German gynaecologists on the continent.

Frequency.

The latest statistics show that this disease is more common than it was thought at one time to be. I do not know if this is owing to an increase of cancer cases - In former days gynaecologists only very rarely attempted an exploratory dilation of the cervix and never an exploratory curetting operation - Owing to those valuable methods of investigation and our more exact knowledge cases are now diagnosed which were formerly not.

Gallard⁹, only diagnosed 2 cases.

Gusserow¹⁰, with better means of investigation was enabled

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| 6. | Duncan Matthews. | "Clinical Lectures on Diseases of Women." |
| 7. | Williams John. | "Cancer of Uterus. Harveian Lectures 1886." |
| 8. | Cullen. | "Cancer of the Uterus." |
| 9. | Gallard. | "Clinical Lectures on Diseases of Women.p.946" |
| 10. | Gusserow. | "Die Neubildungen des Uterus. S.254." |

to collect 122 cases of Primary Cancer of the Body of the Uterus including an indefinite number of cases of Sarcoma. Schröder¹¹ according to Hofmeier diagnosed 28 cases of Primary Carcinoma of the Body in 812 cases of Carcinoma Uteri, that is 3.4 per cent.

Schatz,¹² in 80 cases found 2 cases of Primary Carcinoma of the Body. Pichot¹³ was only able to collect 44 cases among French and English authors.. (in 1876).

The best statistics are those of Krukenberg¹⁴ They are based on his account of radical operations for malignant disease done at the University Clinic for Women in Berlin in five years ending April 1891.

Of 24,887 patients, 924 (3.7 per cent) were suffering from malignant disease of the uterus and of these 292 (31.6 per cent) underwent surgical operation.

The operation in 235 cases was total extirpation and the disease in 197 cases was Cancer of the Cervix.

In 30 it was Cancer of the Body, that is 1 in 7.5.

In 8 it was Sarcoma of the Body. Out of 678 cases of Cancer of the Uterus treated at the Frauen Klinik¹⁵ at Munich there were only 17 cases of Primary Carcinoma of the Body.

11. Hofmeier, Zeitschrift für Geb. und Gynäk 1884. Vol.x p. 269.

12. Schatz. Handl. des Path. Anatomie 1876, p.867.

13. Pichot. Clinical Study of Cancer of the Body and cavity of Uterus. Thesis for M.D. Paris 1876. No. 276.

14. Krakenberg. Zeitschrift für Geburt und Gynäk Bd. xxiii.1893.Heft

15. Blumenfeld. Münh. Med. Wochenschrift. 1899. No. 13.

I have made some statistical investigations into the cases admitted into the Samaritan Free Hospital during the five years 1898 - 1902 inclusive. The number of medical cases admitted was 1,484.

The disease in 88 was Cancer of the Cervix. The disease in 16 was Cancer of the Body, that is 1 in 6.5.

Three cases of the latter were Deciduoma Malignum. As this disease according to the latest investigations has been shown to be carcinomatous in its nature, I have thought it right to include them in my statistics.

Aetiology.

Nothing is known as regards the immediate cause of Carcinoma of the Body of the Uterus. It seems to me there is good ground for hoping that we may discover the initial cause of cancer in studying the morbid process in cases of Uterine Carcinoma where the disease has been diagnosed in its earliest stage.

All that we know is that it is a local disease in the first instance. It is a primary disease of the epithelium although we are still quite ignorant of the cause of this cell alteration. It is a growth of epithelial cells with malignant properties. The growth has the power of invading and destroying the tissues in its neighbourhood and of reproducing itself in distant parts. Its tendency is not only to invade and grow into other tissues, but also itself to break down and die. Hence we have increase and decrease

going on at the same time.

It is interesting to note that the different parts of the uterus vary greatly in their proneness to cancer. Although it is common to find it growing from the mucous surface, not a single instance do we find of it originating primarily in the peritoneal lining.

Another point of interest is the frequency of cases of Primary Cancer of the Uterus compared with that of the vagina, or still more with that of the Fallopian Tube.

Furthermore the various ligaments of the uterus itself differs greatly in their proneness to cancer. I have already referred to this in speaking of the frequency.

Hofmeier¹¹ of Vienna gives the following:-

Of 26,200 women examined by Schröder,

812 had Cancer of the Uterus.

236 had Cancer of the Portio Vaginalis.

181 had Cancer of the mucous membrane of the Cervical Canal.

28 had Cancer of the Body of the Uterus.

In 367 the place of origin was undetermined.

Scharlieb¹⁶ at the New Hospital for Women, London performed Vaginal Hysterectomy on 46 consecutive cases.

In 11 the disease was non-malignant.

In 26 the disease was Cancer of the Cervix.

In 7 the disease was Cancer of the Body.

In 2 the disease was Sarcoma of the Body.

16. Scharlieb. Brit. Med. Journal. Sept. 15th 1900. p.721.

There are certain general causes which favour the development of carcinoma.

Age.

Whereas Cancer of the Cervix is generally found in patients between 40 and 50 years of age, Cancer of the Body is found usually in patients at or past the menopause. At this period the uterus is undergoing retrogressive changes. Its activity being over it becomes atrophied and the epithelium loses its columnar character and tends to become flattened. Should the organ be exposed at this time to any irritative condition, it is easy to see that the physiological process may be prolonged and a pathological activity started which will be manifested by new growth.

Out of thirty one cases of malignant tumour comprising the several varieties of Cancer of the Body observed by Pichot¹⁷ nine only were under 50 years of age.

In the collection of Ruge and Veit¹⁸ the patients over 50 were twice as numerous as those under that age.

The average age of the 17 cases observed at the Frauen Klinik¹⁵ at Munich to which I have already referred was 49.4 years compared with 45.05 for the 678 cases.

17. Pichot. On Primary Epithelioma of the Body of the Uterus. Thesis for M.D. Paris, 1888.

18. Ruge and Veit. Zeitschrift für Geb. und Gynäk Bd.1V 1881.

I append the result of the statistics I made of the patients admitted to the Samaritan Hospital for the five years 1898 - 1902.

Cancer of the Cervix

Age. 20 - 30 cases	3
31 - 40 cases	34
41 - 50 cases	19
51 - 60 cases	21
61 and over "	11
Average age =	46

Cancer of the Body.

31 - 40 cases	2.
41 - 50 cases	4.
51 - 60 cases	7.
61 & over "	3.
Average age =	53.

Childbearing.

Cancer of the Cervix is generally found in patients who have borne children, and in a large number the history is that they have had large families. The Cancer of the Body on the other hand it is generally the relatively sterile who are the subjects of the disease. There is no doubt that childbearing bears a very close causal relationship to Cancer of the Cervix, although it seems to have little to do with the origin of Carcinoma of the Body. Cullen¹⁹ in analysing nineteen cases of Cancer of the Body found that ten of the nineteen women had never been pregnant. Seventeen of these patients were married and it is a significant fact that, six out of the seventeen had never conceived. None of the patients who had had children had more than four.

19. Cullen. Cancer of the Uterus p.p. 473 - 4.

In analysing the cases admitted into the Samaritan Hospital I could not obtain information of the number of pregnancies. From the table, it will be seen that the majority were married.

Cancer of the Cervix.

Married cases were 82
Single were 6

Cancer of the Body.

Married 15
Single 1

Of the 17 cases observed at the Frauen Klinik at Munich¹⁵ only three were nulliparae. The average fertility of the other fourteen was 5.07.

Condition of Life.

It has been asserted by some observers that the subjects of Cancer of the Body are better cared for and are in a different position of life than those who suffer from Cancer of the Cervix. There is no doubt that the latter disease is a very common one among the poor. This may be explained on the ground that they usually have many children, are poorly fed, and are not able nor have the means to have the proper rest and care.

Heredity.

A very small percentage of cases has any hereditary history of cancer.

Schröder²⁰ says of 948 women affected with Cancer of the Uterus, in 78 only was there a hereditary history, of the 31 cases of malignant tumour comprising the several varieties of Cancer of the Body observed by Pichot,²² only one had a definite hereditary history. Cullen²¹ in analysing 13 cases of Carcinoma of the Body found there was a family history of cancer in two cases or 15 per cent. Roger Williams²³ investigated 119 cases of Uterine Cancer which were under treatment at the Middlesex Hospital during the years 1892, 1893, 1894.

The Fathers.

Of 100 cases in which inquiries were made, in 86 the fathers were dead and in 14 still alive. Twenty-four were of decidedly phthisical families. There was not a single instance of cancer among the fathers, but four of them were of decidedly cancerous families. In 30 cases the cause of death was unknown.

The Mothers.

Of 98 cases, in 80 the mothers were dead and in 18 still alive. Of these 98 mothers 17 were of decidedly

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20. Lightoller quotes Schröder. Anat. Med. Gaz. May 20th. 1901.
21. Cullen. Cancer of the Uterus p. 650.
22. Pichot. See reference 17.
23. Williams R. Lancet, Jan 23rd. 1886 p.p. 116 - 7.

phthisical families. Eight of the mothers died of Cancer and in five cases, though the mothers had not died of this disease, they were of cancerous families. Thus of these 98 mothers, 13 were of decidedly cancerous families. In 25 the causes of death were unknown.

The occurrence of Cancer.

Of 108 families in which this particular was investigated, there was a history of malignant disease in 23 families. In 2 cases there was a history of non-malignant tumour. The seats of the disease may be grouped thus:- uterus 12. breast 6, stomach 3, face 2, all others 7.

The occurrence of phthisis.

Of 101 families one or more relatives died or were subjects of phthisis in 49 or 48.5 per cent.

The combination of Cancer and Phthisis.

Of 101 families there was a history of both diseases in 10.

Race.

We find very few statistics on this point. It seems to exert a considerable influence, judging from the comparative, but by no means rare immunity of the negro races. Cullen²⁴ found in 21 cases, 18 of the patients

24. Cullen. Cancer of the Uterus. p.475.

were white women and 3 were coloured. Chisholm's statistics show that carcinoma is more than twice as frequent among the white as among the black.

Clinical Types.

Carcinoma of the Body of the Uterus may be divided clinically into two main types.

- (a) Those in which the growth forms a definite tumour projecting into the cavity of the uterus.
- (b) Those in which the growth is diffused over the surface and infiltrates the wall of the uterus.

(a) The first type may be called the Circumscribed or Papillomatous.

The common site of origin is in the region of the tubal ostia as is well shown in the annexed drawing taken from the uterus of S.B., whose case has been fully described

The growth starts either in the surface epithelium or in that lining the gland which may be considered epithelial "pits". It starts as small round papillomas which are seen projecting on the uterine surface. These go on growing and multiplying until they form an irregular fungoid excrescence or polypoid mass. The older portions become fused and are like the branch of a tree attached to the uterine

surface by a broad base.

In the early stages there is no apparent uterine enlargement, but with the gradual extension of the growth the cavity of the organ is expanded and the antero-posterior diameter becomes increased.

The growth may start close to the Internal Os. As it grows and extends, it dilates the cervix and may ultimately protrude through the External Os.

Although the tendency of the growth is to spread towards the interior, still in time it invades the muscular tissue and may lead to great thickening of the uterine wall. Ultimately it reaches the peritoneal surface and here we may find small soft rounded elevations. The growth is soft and so friable that small pieces of a yellowish-white colour can be brought away on the examining finger. It bleeds freely on the slightest touch. With the gradual advancement of the disease there naturally follow ulceration and disintegration of the superficial parts of the growth.

The mucous membrane of the rest of the uterus is smooth and apparently healthy.

(b) The second type is the Diffuse and Infiltrating.

Instead of starting at one point the growth has commenced at several , or it has become developed

simultaneously over the whole mucosa. It appears as a soft villous out-growth covering the whole of the interior lining of the uterus and may be said to resemble a shaggy coat. It feels soft and friable and the examining finger sinks into its substance. This is the chief diagnostic characteristic of this type.

The disease usually stops at the internal Os but when advanced it may spread down the cervix. This is well illustrated in the accompanying drawing taken from a uterus in the Museum of the Royal College of Surgeons, London.

The tendency of the growth is to quickly infiltrate the muscular tissue and to cause great thinning of the uterine wall. Eventually the growth reaches the outer surface and sets up a peritonitis which will lead to adhesions being formed with omentum, bowel or rectum.

In parts there may be circumscribed thickening and then we get small rounded bosses on the inner surface. These are well shown in the drawing.

With the onset of ulcerative and other destructive processes the interior of the uterus is gradually converted into a sloughing and foul smelling cavity with irregular ulcerated walls.

Such a Clinical Classification seems to me sufficient to cover all cases of Carcinoma of the Body of the Uterus. Lewers²⁶ in his new book describes four clinical types:-

1. Soft Papillary
2. Soft flat growth.
3. Hard tuberos.
4. Hard irregularly ulcerated condition of the endometrium.

In the two latter he says nothing as a rule can be brought away by the examining finger or curette. If this be the case, then it seems to me that it would be impossible to diagnose the cases clinically.

Such a classification is a complex one and in my opinion it is much better to reduce them to the two main types according to the distinctly and most marked feature of each case.

Histological Classification.

From the histological examination of Primary Carcinoma of the Body of the uterus we note two varieties.

1. Adeno-Carcinoma.
2. Squamous - Celled Carcinoma.

1. The first is the common form and it is a derivative of the Uterine Epithelium, either the Surface or Glandular.

What are the changes in the Surface Epithelium? The Epithelial cells proliferate and form small outgrowths. As these enlarge the stroma advances with them carrying the

26. Lewers "Cancer of the Uterus"

blood vessels which furnish their blood supply.

The Epithelium covering proliferates and forms many new glands. There may be one or several layers of epithelium. When there is more than one layer the cells begin to lose their columnar shape and are polymorphous in character.

What are the changes in the Gland Epithelium?

The cells lining the tubules proliferate and this leads to the formation of new glands. The tubules become lined with many layers of cells and in some cases are completely filled. The cells lose their columnar shape and tend to become flattened. The nuclei of the Gland Epithelium may be uniform in size or they may be enlarged, irregular and stained deeply.

There is an irregular grouping and crowding of the glands and their expansion is at the expense of the interglandular stroma. As the disease advances the gland cavities may be empty or filled with desquamated epithelial cells polymorpho-nuclear leucocytes and detritus.

The Stroma of the papillary folds consists of scanty fibrillar tissue rich in small round cells having large nuclei. Leucocytes are also frequently met with in it. It is well supplied with blood vessels.

The deeper portion of the growth invades the muscular tissue and the latter shows a varying degree of small round

cell infiltration along the advancing margin of the growth. This invasion of the basement membrane by the glandular tissue is the chief sign of malignancy.

As the disease advances and necrosis takes place we see a considerable small round cell and polymorpho-nuclear leucocyte infiltration.

2. The second variety is the Squamous.- Celled Carcinoma. This is a very rare form. Pozzi²⁷ in referring to it calls it a pathological curiosity and says it was first observed by O. Piering²⁸ in 1887. Cullen²⁹ however, looks upon this case as secondary to that of the cervix. He himself had not met with a case.

From a study of authentic cases it seems to me that this form of tumour occurs some considerable time after the menopause. Attention has already been drawn to the retrogressive changes which the uterus undergoes at the climateric period and to the tendency for the columnar Epithelium to become flattened and squamous in character. Histologically it is covered by many layers of squamous epithelium which sends branching prolongations into the deeper tissues. The cell nests are numerous and communicate freely with each other while the cells show diversity in size and shape. The Stroma is scanty in amount and shows marked small round-cell infiltration.

27. Pozzi. Treatise on Gynaecology. Vol. II. p. 88.

28. Piering. Zeitschrift für Heilk 1887. Vol. viii. p.335.

29. Cullen. Cancer of the Uterus. p.880.

Mode of Extension.

The growth is usually a slow and chronic one. Its tendency is to remain confined to the uterine body and slowly penetrate its walls. The whole organ may be degenerated into a malignant mass and yet show no evidence of disease beyond its limits. Extension may occur by penetration of the walls and implantation of the growth on the peritoneal surface. It may spread to the Broad or Utero-Sacral Ligaments by the lymphatics or by direct extension through the Internal Os to the Cervix or through the tubal ostium to the Fallopian Tube³⁰ and Ovary³¹.

Secondary growths may also be found in the Vagina. Metastatic deposits in the Liver, Lungs and Pleurai are rare. They are occasionally found in cases in which the disease is advanced.

The lymphatic glands which may be affected secondarily in Carcinoma of the Body at a very late stage are the Lumbar glands which receive the lymphatics from the body and fundus of the uterus and which are situated in front of the aorta on a level with the lower extremity of the Kidney.

Where the disease has extended to the uterine horns the Inguinal Gland may become involved through extension along the lymphatics which pass from this part of the uterus outwards along the round ligament.

30. Ries. Zeitschrift für Geb und Gynäk Bd.xxxii (1895) S.267.

31. Reichel. Zeitschrift für Geb. und Gynäk 1888 Bd.xv. S.354.

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In referring to the subject of Metastatic growths Winter³² records that he collected from different sources accounts of 255 post-mortem examinations of patients dying from uterine cancer. Among these there were secondary growths in the Liver in 9 per cent, in the Lungs in 7 per cent, in the Kidneys in only 3.5 per cent, and still less often in the stomach, bowels, brains and other organs. He performed forty-four autopsies on patients dying of Carcinoma in whom the disease was still confined to the uterus and he did not find one with metastatic growths and he found only two which showed glandular enlargement.

Before discussing the symptoms and physical signs I append the history of a case of Primary Carcinoma of the Body of the Uterus which came before my notice at the Samaritan Hospital, and which will be used as a basis of comparison with other diseased conditions of the uterine body.

S.B. aged 54 years - married.

A healthy-looking woman was admitted into the Samaritan Hospital on Dec. 29th 1902.

Complaint: Vaginal Discharge.

Duration: Eight months.

Previous History: She had had two children. Last child was born twenty-one years before her admission.

32. Winter. Zeit. für Geb. und Gynäk Bd. xxxvii.

She had had no miscarriage. She had been married thirteen years before the birth of the first child.

Present Illness: The menstrual periods were regular until Christmas 1901. They lasted from four to five days and were of the twenty-eight days' type.

The present illness began at Easter 1902 with a vaginal discharge. For several days at first it was thick blood, then it became thinner watery and purulent. It was always slightly blood-tinged but the amount of blood was much increased at times.

Since Christmas 1901 she lost blood freely at irregular intervals. The amount of the blood loss was diminished after the onset of the discharge and the latter was accompanied by pain in the right side of the abdomen.

The patient had not lost flesh and she looked well and healthy. The bowels were constipated.

Examination by the abdominal method revealed a swelling behind the Symphysis pubis. By the combined method this was found to be an enlarged uterus. The cervix was healthy but from the external Os there issued a muco-purulent discharge.

Examination under Anaesthesia:

On Dec. 31st the patient was anaesthetised. The uterus was found to be much enlarged. It was movable regular in outline and of a medium consistence. The cervix was

dilated by Hegar's method and on introducing the finger a papillomatous growth was felt. It was soft, friable and bled freely on being touched.

Diagnosis: Carcinoma.

Treatment: As the uterus was too large to be removed by a vaginal hysterectomy, a combined vagino-abdominal operation was performed. The uterus Fallopian Tubes and Ovaries were extirpated. The patient rallied well after the operation but died on Jan. 8th 1903 from Septic Peritonitis.

Symptomatology.

There is no one symptom which can be called pathognomonic. We find no fixed routine of symptoms which can be applied to all cases. Every case must be looked upon as a clinical picture and studied as a whole. In the case I have described the three leading symptoms were haemorrhage discharge and pain.

Haemorrhage.

This is a very important symptom and is often the first. At least it is generally the first symptom which alarms the patient and makes her seek advice. If a haemorrhage occurs in a woman at or past the menopause or in a woman who is not pregnant or has not had a recent miscarriage, it ought to be considered most suspicious and a thorough examination

of the interior of the uterus ought to be made.

The blood loss bears no relation to the menstrual period. As in the case described it is a metrorrhagia. In the anti-climateric cases there is often a history of an increased menstrual loss for some months previous to the manifestation of other symptoms. The amount of the blood loss may be so small as merely to tinge the discharge or on the other hand it may be an actual flooding. The latter however, is not so common in Cancer of the Body unless it be a case of Deciduoma Malignum. Though frequently slight at first yet it is not infrequent in quantity.

In color it may be bright red but usually it is dark. Sometimes it is merely altered blood and then the color is brownish-red. In consistence it may be thick and clotted or thin and watery.

It is chiefly in the papillomatous type that we get haemorrhage as an early symptom. The blood vessels of the growth have a very thin covering and are easily ruptured. It is easy to see then, that such a bleeding may occur during exertion or straining during defaecation when the one uterine surface may be rubbed on the other.

This type of growth is also more prone to early ulceration and necrosis and in this way we may get a sharp bleeding as the first symptom.

Discharge.

Not infrequently the first symptom complained of is a vaginal discharge. This is probably the case as long as the surface of the growth is free from injury or when it does not project into the cavity of the uterus but is diffused. In the early stages of such a growth where there is great proliferation of the Epithelial cells and gland tissue with increase in the number of bloodvessels it is easy to understand why such a discharge should be found occurring as the first symptom. It may be present for some time before any trace of blood is found. This discharge may be so slight that it attracts but little attention from the patient or it may be looked upon by her as of no importance or simply as a leucorrhoea.

Such a discharge occurring in women especially in those who have passed the climateric, is a symptom of the utmost importance and should never be neglected.

A careful examination should be made not only digitally but with the speculum to ascertain if the discharge comes from the uterine canal. The character of the discharge is usually watery and not viscid. It may be purulent as in the case I have described. In color it may be red from the addition of fresh blood, reddish-brown due to the pressure of altered blood or it may be described as dirty water. There may be no smell in the early stage.

Although the discharge is slight at first, as the disease progresses and ulceration and necrosis follow, it is much increased. It becomes more sanious and now it has a heavy offensive odour owing to the presence in it of shreds of necrotic tissue. In the advanced stage it is often accompanied by sharp haemorrhage.

Pain.

This is a very variable symptom. It is supposed to occur at an earlier period of the disease than in Cancer of the Cervix. In the case described the patient had pain in the right side of the abdomen and its onset dated from the commencement of the discharge. In the early stage then, pain is an important symptom in the papillomatous form. It varies in character, degree, position, and time of attack. Often the patient only complains of a tired and languid feeling or she may have a sense of fulness accompanied by slight pain of a forcing or neuralgic character over the lower part of the abdomen.

Again the pain may be shooting, stabbing or darting, or it may be only a burning, aching, dragging or bearing down.

As regards position it may be over the hypogastrium, in the iliac regions or groins. As the disease progresses the pain grows more severe and is referred to the sacrum and the thighs.

The pain may be increased by long standing exertion or travelling. If there be constipation the pain will be increased during defaecation owing to the greater pressure and increased congestion of the parts.

In intensity the pain may be so slight that it does not cause the patient to seek advice and after it is relieved after rest in the recumbent posture.

On the other hand as the disease advances the pain is intensified and may prevent sleep. The late Sir J. Y. Simpson drew attention to the paroxysmal character of the pain in the later stages. No doubt in many cases of the papillomatous type those crises of intense pain are due to the contractile efforts of the uterus to expel the pent-up contents while in others they are probably of the nature of a neuritis.

Sometimes the pain is relieved by bleeding and this would suggest that tension of the vessels in the diseased part was its cause.

In many cases especially in the diffuse type there is no complaint of pain till the disease has spread beyond the uterine tissues and invaded adjacent parts as the peritoneum or the broad and utero-sacral ligaments. In these cases we must rely on other symptoms and signs if the true condition is to be diagnosed before it be too late.

General Symptoms.

These vary in different cases. Where there has been a continuous blood-loss, the patient may be sallow complexioned and haggard looking. This, however, is not the usual condition. On the other hand the patient generally looks healthy and is well nourished, and this may be the case even though the disease be advanced so that the patient's outward appearance is no true guide to her uterine condition. As a rule there is no loss of flesh on the contrary there may be a gain and cachexia does not appear till a very late stage of the disease. The explanation of this is no doubt that there is less chance of organisms reaching the interior of the uterus and setting up putrefactive changes and so causing a sapraemia.

The appetite is often impaired and the bowels are generally constipated.

The nervous system is lowered in tone and there is often a history of broken sleep. Following this is a feeling of general weakness.

Physical Signs.

Abdominal examination may reveal a swelling behind the Symphysis Pubis on deep palpation.

Vaginal examination will reveal the presence of blood or discharge around the orifice and by means of the speculum the blood or discharge will be seen issuing from the

external Os. We will also be able to note that the cervix uteri is healthy.

By the bi-manual examination the uterus will be found to be enlarged, regular in outline, except in the late stage when there are secondary growths on the peritoneal surface, soft and elastic in consistence and movable unless the disease has spread beyond the limits of the uterine tissue and invaded adjacent structures. In an early stage of the disease there will be no apparent enlargement of the uterus and in certain post-climateric cases it will be atrophic and smaller than normal. It will also be noted that the vaginal fornices are free.

The Sound is of great use but it must be used with care. It will assist in confirming the enlargement of the uterus. It may impinge on the rough uneven surface of the growth if it be of a papillomatous type or it may sink into the growth if it be the diffuse form. It will inform us whether the uterine surface is rough or smooth.

On the withdrawal of the sound there will be free bleeding out of all proportion to the force used.

Diagnosis.

There are several difficulties in the way of an early diagnosis. There is no doubt that many cases have not been diagnosed because they have not been thoroughly examined. The blood-loss or the discharge has been looked

upon as natural to their age. The cervix and os uteri were found free from disease.

Another difficulty is that women shrink from consulting anyone from modesty or dread of an examination. They believe that the slight haemorrhage is due to their age. Some, no doubt fearing they are suffering from cancer, like to keep away the truth as long as possible. Another difficulty is the obscurity of the early symptoms. She has some dull pain over the lower part of the abdomen accompanied by a discharge and occasional bleeding, but they are so slight that they do not cause her to seek advice. It is only when there is an alarming haemorrhage, or when the discharge becomes very offensive, that she ~~thinks~~ thinks something must be wrong and consults her doctor, only to find that she is suffering from advanced Carcinoma.

It is, therefore, most important and necessary to make an early and thorough examination of every case of vaginal haemorrhage or discharge, and especially in a patient at or past the menopause.

In many cases digital examination will disclose much. The uterus will be found enlarged while the cervix and os. are healthy. This enlargement will depend on the type

of disease with which we have to deal. In most cases of early disease, digital examination reveals very little and we must have recourse to the speculum and sound. We have already noted the information to be got from these agents.

If all those conditions are present, we may feel fairly certain that we are dealing with a case of Carcinoma of the Body.

The diagnosis, however, is not even then always certain, and a more extensive examination must be made under anaesthesia. The cervical canal is dilated and the uterine mucosa is examined by the finger. The tactus eruditus is the surest guide. If there be still any doubt scrapings must be removed by means of a curette and submitted to a microscopical examination. We must be careful to remove the scrapings from more than one part and see that they are thoroughly examined by a competent pathologist, preferably one who has a special knowledge of uterine morbid anatomy. This is a point on which I wish to lay stress, as I have seen a report given more than once that the disease was carcinomatous, when it was only Chronic Hyperplastic Endometritis. The microscope is only of use where it gives confirmatory evidence. A negative report does not prove the absence

of cancer. It is only by looking at the clinical picture as a whole, a point emphasised by Schönheimer³³ that we can form a correct diagnosis. In doubtful post-climacteric cases where the uterus has been freely curetted and there is a return of the symptoms with no diminution in the size of the uterus, we ought to look upon them as cancerous and treat accordingly, whether the section under the microscope present a favourable prognosis or not. It seems to me a safe rule to look upon all post-climacteric intra-uterine activity, especially if combined with increase in the size of the uterine body, as malignant and to extirpate the organ as soon as possible.

Differential Diagnosis.

It is easy to understand from what has been said how very difficult it is often to differentiate Primary Carcinoma from other diseases of the Body of the Uterus.

Clinical material to illustrate those diseased conditions that might give rise to difficulty has been collected at the Samaritan Hospital.

We may divide them into two classes:-

- I. Anti-Climacteric.
- II. Post-Climacteric.

I. Anti-Climacteric.

1. Pregnancy associated with haemorrhage.

33. Schönheimer. Arch. für Gyn. Bd. XLV. s. 157.

In an early pregnancy, the diagnosis is determined by the history of amenorrhoea, morning sickness and fulness of the breasts. Bimanually the uterus is felt to retain its pear-shape and the cervix to be softened, although it may be difficult to appreciate this at an early stage. In a case of malignant disease, the enlargement of the uterus is uniform, and the cervix is not softened.

In a more advanced pregnancy, in addition to the signs already mentioned, there is marked softening of the cervix and purple discolouration of the vaginal walls and vulva. The uterus shows ballottement and it may be possible to feel the parts of the foetus. If the os. be patulous it may be possible to feel the soft bag formed by the ovum. If there be still doubts about the origin of the haemorrhage the proper course is to dilate the cervix and explore the cavity with the finger. This would make the diagnosis absolute.

2. Retained Secundines.

A.S., an anaemic-looking woman, aged 31, was admitted into the Samaritan Hospital on May 5th. 1902.

Complaint: Loss of blood from vagina.

History: She had been confined two months before and since her confinement she had had continual blood loss. The labour was a difficult one.

Examination: The uterus was slightly enlarged, outline

regular. The cervix was healthy and os slightly patulous. under anaesthesia the cervix was dilated and the interior of the uterus was examined by the finger. A small rough patch was found. This was curetted and a few fragments removed.

The diagnosis in this case rests on the history of pregnancy, loss of blood since the confinement and the condition of the uterine mucosa. A microscopical examination of the scrapings would reveal decidual tissue.

3. Extra-uterine Gestation with Haematocele.

S.A. aged 35 years, married, an anaemic-looking woman was admitted into the Samaritan Hospital on April 13th, 1902.

Complaint: Haemorrhage from the vagina. This had lasted for five weeks. The loss was constant and remained the same in quantity.

History: She had had five children, twins in April, 1901. She had had a miscarriage at the third month in October 1901. After the miscarriage, the periods were regular till February 1902, when she had amenorrhoea for five to six weeks. The blood loss commenced seven days later and was accompanied by severe pain in the right iliac region, which lasted several hours. The pain returned the middle of the following week and lasted four hours.

After this attack, she remained in bed until April 13th. when she came into the Hospital.

Before the onset of the haemorrhage, the patient thought she was pregnant, and when it started a small piece of flesh was passed. The discharge was occasionally dark in colour.

Examination. The uterus was not enlarged and the cervix was normal. A swelling was found in the pouch of Douglas, which extended upwards and outwards on the right side. Under anaesthesia this swelling was found to be composed of a large mass of blood clot encapsuled in a greenish-yellow capsule. The uterine mucosa was thickened but smooth.

Diagnosis. There is the history of the constant haemorrhage starting after a period of amenorrhoea, of recurrent pain, and of a probable pregnancy. The local examination revealed a swelling behind and to the right side of the uterus. The mucosa was smooth and showed no evidence of disease.

4. Fungous Endometritis.

E.Y. aged 41 years, a slightly anaemic-looking woman was admitted into the Samaritan Hospital on December 30th 1902.

Complaint: Haemorrhage from the vagina, which had lasted for fourteen weeks.

History: Patient had had three children, no miscarriages. Her last child had been born seven and half years before.

The periods were regular until the onset of the present illness, they lasted five to six days and were twenty-one to twenty-eight days' type. No cause was known for the onset of the haemorrhage except shock. The loss of blood varied from day to day. At times it was excessive. She had a good deal of hypogastric pain. No backache. For three months this pain had been of a griping character. She had lost flesh. Her appetite was impaired. There was no loss of sleep.

Examination: The uterus was slightly enlarged and tender. It was moveable and regular in outline. The cervix was healthy.

Under anaesthesia the cervix was dilated and the interior of the uterus examined. Small villous outgrowths were found springing from the mucous membrane. They were soft and easily detached. The mucosa was curetted and some villous material scraped away. This was submitted to a microscopic examination and revealed a hyperplasia of gland tissue and a small round cell infiltration.

Diagnosis: In such a case the diagnosis can only be made after the interior of the uterus has been examined and the scrapings microscopically examined. Although there is a hyperplasia of gland tissue, still it is healthy and there is no irregular multiplication and crowding as is seen in carcinoma. There is no invasion of the deeper structures. The surface and gland epithelium are intact.

5. Polypus.

M.M. aged 44 years, married, a profoundly anaemic-looking woman, was admitted into the Samaritan Hospital on February 7th 1902.

Complaint: Haemorrhage from the vagina.

History: She had had nine children. The last child had been born two and a half years before, two months before full time, owing to a fall. The menstrual periods had been regular. They lasted for ten days, were profuse and were fourteen to twenty one days' type.

Present Illness: For the last three years the periods were increased in quantity and duration, and for the last two years clots were frequently passed. In June of 1901 she was confined to bed for fourteen days owing to a bleeding.

Before her admission into Hospital, she had been confined to bed for six weeks. She had a dragging feeling in the left iliac region for some months. She had occasional slight leucorrhoea. As a result of the last attack of bleeding she was very weak. She had lost flesh and her appetite

was impaired.

Examination: The uterus was enlarged and freely moveable. The cervix admitted the finger, which impinged on a polypoid growth in utero. The relations of the growth could not be determined without further examination. Under anaesthesia the cervix was further dilated. The finger introduced into the uterine cavity felt a polypoid swelling growing from the posterior uterine wall. It was smooth to the touch and the rest of the uterine mucosa was smooth.

Diagnosis: In such a condition the haemorrhage is a menorrhagia not a metrorrhagia, and it is very profuse. In carcinoma, on the other hand, the bleeding is an irregular metrorrhagia and usually is not profuse. The present patient was profoundly anaemic. A subject of carcinoma is usually not so. The discharge is leucorrhoeal and not watery and foetid as in carcinoma. The tumour is firm and globular and its covering is smooth and glistening resembling the mucosa.

If the polypus is sloughing, then it is more difficult to diagnose its true nature. The surface may be rough and broken resembling that of Carcinoma. It is of a firmer consistence and it may be possible to show fibrous tissue if we tease out the small detached portions of the growth.

A microscopic examination would show the growth to be

covered by one layer of columnar epithelium continuous with that of the uterine mucosa, and that it is composed of the same elements as the mucosa.

6. Myoma.

M.G. aged 46, married, and anaemic sallow complexioned woman, was admitted into the Samaritan Hospital.

Complaint: Haemorrhage from the vagina, which had gone on for three years.

History: She had had three children, no miscarriages. Her last child had been born eighteen years before. The periods had been regular. They lasted five or six days, were very profuse for three days and were of the twenty-one days' type.

Present Illness: The periods were not profuse until three years ago. The amount of blood lost at the periods was so great that she was confined to bed for three days.

There was a discharge but not offensive. Patient had pain in the lower part of back and down the hips and over the hypogastrium at intervals, especially at the periods, for three years. The pain was described as being "numb", as if she were paralysed in the back. She was becoming thinner. Her mother died of dropsy, aged 51 years. Her father died of a tumour of the jaw at the age of 65.

Examination: The uterus was enlarged, firm in consistence, especially posteriorly and moveable. Under

anaesthesia the cervix was dilated and the uterine cavity examined. The main uterine enlargement was found to be due to a swelling growing in the upper two thirds of the posterior wall. The anterior wall was not affected. The swelling felt harder under anaesthesia. It bulged the mucosa in the upper two thirds, the membrane being thickened but otherwise healthy. The finger did not "sink into the growth". From its surface a small tongue-shaped portion was growing. The surface was lightly curetted.

Diagnosis: The blood loss was excessive and occurred chiefly at the periods which were profuse. This loss had been going on for three years. The discharge was not offensive and the pain was worse at the periods. The local examination revealed the medium-hard rounded smooth swelling in the uterine wall. The uterine mucosa, although thickened was otherwise smooth and not friable. There was no evidence of the tumour breaking down or bleeding on being touched.

All those points are sufficient to show we have a case of Myoma and not a Carcinoma.

7. Fibrotic Uterus:

E.B. aged 43, married, a fairly healthy looking woman was admitted into the Samaritan Hospital on January 24th 1903.

Complaint: Metrorrhagia which had been going on for three months.

History: She had had no children, no miscarriages. The periods were regular up to the onset of the present illness. They were not profuse and were of the 21 to 28 days' type. The discharge varied in colour, one time being dark and another time pale, like "whites". She said it had an offensive odour. She had a dull aching pain over the left iliac region, and it was frequently followed by great irritation in the skin of that region. Her appetite was poor. Bowels were relaxed.

Examination: The uterus was slightly enlarged and retroverted. It was regular in outline and freely moveable. It was firm in consistence. The cervix was healthy and os small.

Under anaesthesia the cervix was dilated and the interior of the uterus examined. The mucosa was smooth, there were no irregularities. The uterine tissue was firm. It was lightly curetted. Microscopic examination only revealed a small round cell infiltration.

Diagnosis: In such a case the diagnosis can only be made after a thorough examination of the uterine cavity and a microscopic examination of the scrapings removed by the curette. The result of both in the present case was

negative. The metrorrhagia, offensive discharge and sterility were suggestive of a carcinoma. The case illustrates the importance of a thorough intra-uterine examination.

8. Haematometra.

M. C. aged 50, single, was admitted into the Samaritan Hospital on February 27th 1902.

Complaint: Increased loss of blood at the menstrual periods which had lasted for four and a half years.

History: The previous periods were regular. They lasted five or six days. In the last four and a half years the quantity had been gradually increasing. For three months in 1901 she had amenorrhoea, then the periods returned for fourteen days. In September 1901, she had a loss of "clear water" for two days. The period did not recur till Christmas when it continued for five weeks, accompanied by tenderness of the vulva orifice.

Examination: The uterus was slightly enlarged and soft in consistence. It was freely moveable, the cervix was healthy.

Under anaesthesia the cervix was dilated and the interior of the uterus examined. A small quantity of retained blood, dark in colour and thick in consistence was evacuated

The blood appeared to be retained by a perforated septum situated in the upper third of the uterus, the orifice of which admitted the top of the finger.

Diagnosis: Here again it is difficult to come to a definite diagnosis of the condition without a thorough and careful examination of the uterine cavity. The haemorrhage, discharge, her age and maidenhood were all suggestive of some malignant condition. On further examining the uterine mucosa no such condition was found and the true state was diagnosed. It is important that such a case should be kept under observation for some time.

9. Sarcoma.

It is impossible to diagnose this condition from Carcinoma of the Body from the clinical symptoms and signs. They are practically the same in both diseases. Pain is usually more pronounced in Sarcoma as being situated in the wall of the uterus it sets up colicky contractions. Clinically, the distinction is unimportant, for the treatment is the same in both conditions. It is only by a microscopic examination that a definite diagnosis can be made. In Sarcoma we find homogeneous masses of uniform round, or spindle-shaped cells, whose nuclei are round and stain deeply. There is little or no stroma between the cells, but very fine capillaries traverse the growth and divide the tissue up into alveoli.

In Adeno-Carcinoma, on the other hand, the blood vessels are situated in the stroma, which is abundant. There are no homogeneous masses but a gland-like arrangement can always be made out in some part.

10. Carcinoma in the Cervical Canal.

This condition is one to be remembered. There is no outgrowth but a crater-like ulcer in the cervical canal. There is nothing to be felt in a vaginal examination nor is any diseased condition to be seen by the speculum. The diagnosis is only made after a thorough dilatation of the cervical canal and a digital exploration of it have been carried out.

11. Tuberculosis of the Endometrium.

In the early stage of this disease when the endometrium is studded with miliary tubercles, there are no symptoms. In the later stages when the cavity is lined with caseous matter, it may give rise to symptoms suggestive of Carcinoma, as pointed out by Whitridge Williams.³⁴ In such an advanced stage of the disease there would be evidence of tubercular disease elsewhere, in the Fallopian tubes, peritoneum or lungs. The presence of tubercle bacilli in the discharge would be conclusive evidence of the real condition.

II. Post-Climacteric Cases.

(1). Some menopausal irregularity.

Such a case must be very carefully examined as the

climacteric change physiologically should pass without any serious symptoms. The diagnosis would rest upon the menstrual history and the presence of other symptoms of a nervous character; hot flushings, mental depression, insomnia. The haemorrhage would be more a menorrhagia than a metrorrhagia. There would be the absence of any enlargement of the uterus or a pathological condition of the interior after a thorough examination by the finger.

2. Senile Endometritis.

Case reported by Handfield Jones³⁵.

Mrs. H., aged 47 years, a stout healthy-looking woman, was admitted into the hospital on February 16th 1898.

Complaint: Undue uterine bleeding.

History: She commenced to menstruate at the age of thirteen and was always quite regular up to June 1897. From that date regular menstruation ceased. From time to time, however, a little reddish discharge was present. In December 1897 the loss lasted all the month and was often brownish red in colour and somewhat clotted. The same character was present in the discharge throughout January and up to the date of her admission. At times it was very offensive.

35. Jones Handfield. Brit. Med. Journ. 1901 Jan. 19. p. 136.

Examination: Abdominal examination showed a little tenderness above the symphysis pubis. Per vaginam the cervix was found small and the external os stenosed. The uterus was normal in size. The vaginal fornices were free and the uterine sound passed a normal distance.

Under anaesthesia the cervix was dilated and the uterine mucosa was curetted. Some shreds of membrane were brought away but no villous growth. For a few days a reddish-brown discharge continued. Then this ceased and the patient was discharged free from all vaginal loss.

Diagnosis: This case offers a considerable resemblance to one of Cancer of the Body. The chief clinical point is the profuse offensive discharge. The bimanual and vaginal examinations revealed no abnormality. In many cases the clinical course is similar to that of Cancer of the Body and especially in the early stages of the latter.

It is impossible to form a correct diagnosis without an exploratory curettage and histological examination. This may be negative, as in the present case. In those cases of Cancer of the Body where the growth does not show on the surface for some time, we may not find any projecting growth with the finger, and histological examination of the scraping may only show endometritis. A case of Senile Endometritis ought to be carefully watched, as it may become, or be

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followed by, a Carcinoma. The importance of this point has been emphasised by several gynaecologists. Matthews Duncan,³⁶ Halliday Groom,³⁷ Rosenwasser,³⁸ McCann.³⁹ If after curetting the uterus the symptoms return, it is better to look upon the condition with suspicion and to advise removal of the organ.

3. Myoma.

L.R., aged 56 years, a sallow-complexioned woman with lupus erythematosus over butterfly area, most marked on the right side, was admitted into the Samaritan Hospital on February 3rd 1902.

Complaint: Loss of blood from vagina.

History: She had had eight children. The last child had been born eighteen years before. She had had one miscarriage before the birth of the last child. The menopause took place at the age of 50. Since that time she had no blood loss from the vagina until six weeks before her admission when a discharge of blood and matter, about a

36. Duncan Matthews. Clinical Lectures on Diseases of Women p.61.

37. Groom Halliday. Edin. Med. Journ. April 1898.

38. Rosenwasser. Annals of Gyn. and Peditry. Oct.1897.

39. McCann. Brit. Med. Journ. 1901 Vol. II, p.71.

teacupful in quantity, came from the vagina.

No cause was known for the haemorrhage. The discharge came in a gush and lasted more or less all day, then ceased and she had no return of the discharge.

A fortnight later she had severe hypogastric pain necessitating her confinement to bed. The pain lasted three days and was cutting in character. This pain disappeared but some aching persisted in the left iliac region accompanied by pain over the sacrum. She had lost flesh. Her appetite was impaired. No hereditary history of cancer.

Examination: The uterus was markedly enlarged. It was the size of a four months' pregnancy. It was moveable regular in outline, firm in consistence.

Under anaesthesia the above signs were confirmed and a diagnosis of Cancer of the Body was made without dilating the cervix. The uterus owing to its large size was removed by the combined vaginal and abdominal operation.

The uterus after removal was found to be the seat of a fibroid growth, which could be enucleated after removal.

Diagnosis: The age of the patient, onset of the blood and discharge six years after the menopause, pain, and marked enlargement of the uterus, were all in favour of the diagnosis of Cancer of the Body. This case

illustrates the necessity there is for a preliminary dilatation of the cervix and a digital examination of the interior of the uterus, followed if necessary by a curetting and a histological examination of the scrapings. A fibroid is distinguished by its smooth surface, its hard consistence and its rounded outline. There is no papillary or warty projection. It does not, like cancer invade the tissues, but is encapsuled. If it be sloughing there will be signs of ulceration, but it has not the soft friable character of a cancer. I have already referred to the microscopic appearance. It is important to remember that both diseases may be present and that the clinical symptoms of the myoma may mask those of carcinoma. If a patient who has been suffering from a myoma has irregular haemorrhages after the menopause, the presence of cancer ought to be suspected and the uterus should be curetted and the scrapings microscopically examined.

Prognosis: We have seen that Primary Carcinoma of the Body of the Uterus is a slow and chronic disease and that it spreads by direct extension to the neighbouring tissues. It is only at a very late stage that the lymphatics become infected, thereby differing, as I have already pointed out from Cancer in other parts of the system. This is

particularly the case in the papillomatous type where the growth tends to spread towards the cavity of the uterus, and where there is less chance of secondary deposits in the neighbouring organs. In this variety therefore, the prognosis is a favourable one.

In the infiltrating type, on the other hand, the tendency for the growth is to spread towards the muscle and therefore in the later stages there is a greater risk of secondary deposits in the surrounding parts which would lead us to give a more guarded prognosis as regards a recurrence.

The earlier then, the true condition is diagnosed the better hope there is of a complete cure and freedom from recurrence.

Treatment: The line of treatment to be adopted in a case of Carcinoma of the Body must be either:-

- I. Radical, or
- II. Palliative.

I. The radical treatment is total extirpation of the uterus with the Tubes and Ovaries, and it is the only form in cases where the disease is localised to the uterine tissues. The indications are:-

- (1) Free mobility of the Uterus. This may be an uncertain guide in cases where the intestine only has become adherent.

- (2). Freedom of the Broad and Utero-Sacral Ligaments and Pelvic Glands from secondary implication.

We have a choice of two methods of operation.

- (A) Vaginal Hysterectomy.
- (B) Abdominal Hysterectomy.

A. The Vaginal method is the one that ought to be adopted whenever it is possible. It does not involve so much risk as the abdominal one and therefore the fatalities are fewer. The disadvantages are:--

- (1) The limited space for operating. This is especially so in a nullipara or elderly maiden whose vagina is narrow and undilatable.
- (2) It has been suggested that this difficulty may be overcome by lateral incisions or a posterior incision through the vagina. In such a method there is the danger of secondary infection at the time of operation.
- (3) If the uterus be much enlarged, it may be impossible to extract it per vaginam.

B. The Abdominal operation ought to be done only in cases where the uterus is much enlarged and where there is doubt as to the exact amount of extension of the disease to the surrounding tissues. Against this method is the greater risk of a fatal issue to which I have already referred.

II. The Palliative treatment is only to be adopted in cases where the disease has extended beyond the uterine tissues to neighbouring structures and where secondary deposits exist.

We must try to make the patient as comfortable as possible by local and general treatment.

Locally we may apply the curette and actual cautery and drain the uterine cavity by iodoform gauze. We can also douche out the cavity with antiseptics to lessen the sepsis and thereby remove the foetid odour..

The general treatment is to maintain the patient's strength by a generous diet and tonics, to remove dyspeptic symptoms and constipation, and to procure freedom from pain and give rest by a judicious use of sedatives.

Results of Operation.

Krukenberg⁴⁰ found 63.2 per cent of cases of Carcinoma of the Body still suitable for operation.

Of 26 patients,	18	were free from recurrence after 1 year
" 16 "	13	" " " " " 2 "
" 13 "	9	" " " " " 3 "
" 11 "	7	" " " " " 4 "
" 5 "	4	" " " " " 5 "

Hofmeier⁴¹ gave the results of operation in 23 cases. In four cases an abdominal operation was performed and all

40. Krukenberg. Zeitschrift für Geb. und Gynäk Bd. xxiii
 41. Hofmeier. Zeitschrift für Geb. und Gynäk Bd. xxxii,
 1895.

died. In 19 cases a vaginal operation was done and only one died. Hofmeier says that this was the only death in his last 60 cases of vaginal hysterectomy.

In 2 cases there was a recurrence in the first year. The remaining 16 cases were well at the time of the report implying immunity for one to eight years from the disease after the operation.

Results of operation in cases at the Samaritan Hospital.

Cancer of Cervix.

Cases operated on = 34

Cases beyond operation 54. Cases beyond operation = 3

Result = 3 deaths.

The operation was One
Vaginal Hysterectomy

Cancer of the Body.

Cases operated on = 13

Result = 3 deaths.

Case required a combined vagino-
abdominal operation.

Two were cases of Deciduoma
Malignum.

Deciduoma Malignum.

In the statistics I have given of the number of cases of Carcinoma of the Body of the Uterus admitted into the Samaritan Hospital, London, I included three cases of Deciduoma Malignum.

I do not intend, nor is it necessary in a clinical study, to enter into a discussion whether this type of

growth is a Carcinoma or Sarcoma. The opinion at the present time favours the view that it is of epithelial origin and therefore I have deemed it right to refer to it in this paper.

The honour of having been the first to notice this condition must be given to M. Sanger⁴² of Leipsic.

The first case diagnosed during life was that of Gottschalk⁴³

Marchand⁴⁴ had a number of cases and deduced it was a growth of epithelial elements.

It is a diseased condition which seems to be fairly common in our own country and many cases have been reported. I annex the history of two cases, one anti-climacteric, the other post-climacteric.

1. A.W. aged 46 years, was admitted into the Samaritan Hospital on March 19th, 1902. She was an extremely anaemic sallow-complexioned woman.

Complaint: Passage of blood and clots from the Vagina.

History: She had had six children, the youngest being nine years of age. She had never had a miscarriage to her knowledge.

Her menstruation was regular, scanty, only lasting two days. In August 1901, she had an attack of

42. Sanger. Centralblatt fur Gynak 1889.

43. Gottschalk. Berl. Klin. Woch. 1893. No. 1V.

44. Marchand. Morat. fur Geb. und Gynak Bd. 1. H.S. 6. 189

haemorrhage, clots and fluid blood being passed. The bleeding ceased and did not recur until the end of December 1901. After this period there was daily loss of blood from the vagina. A fortnight previous to her admission she was examined by a doctor and afterwards she stated that the discharge became foetid. She had very little abdominal pain but with the onset of haemorrhage she had considerable pain in the Sacral region. Her mother died aged 67 years of "something in the liver." She was well nourished and stated that she had gained flesh. Her anaemia however, was extreme, the mucous membranes being pallid. Dyspnoea on exertion was marked. Abdominal examination revealed a central swelling reaching to the mid-point between the umbilicus and the symphysis pubis, moveable and painless.

A brownish watery extremely offensive discharge issued from the vagina. Bi-manually the swelling above noted was found to be uterine and of the consistence of a soft myoma.

The temperature varied between 100° F. and 102° F. with corresponding depressions.

On March 26th she was anaesthetised and on introducing the finger into the uterine cavity, which did not require preliminary dilatation, the walls were found to be covered with irregular nodules readily breaking down. Several

necrotic pieces came away on the examining finger. The vaginal walls were carefully examined for secondary growths and high up on the anterior wall a bluish nodule about the size of a sixpence was detected, flattened and commencing to necrose on its surface. As this was evidently a secondary growth no operation was attempted. By the aid of douching and careful nursing her condition was improved so much that she was able to leave her bed on April 15th. However towards the end of that month her temperature began to rise higher accompanied by increased weakness. She began to suffer from increasing dyspnoea and the physical signs pointed to secondary growths in the lungs. She died on May 23rd 1902.

Post mortem Examination revealed no peritonitis or free fluid: uterus enlarged and adherent to neighbouring coils of intestine. A few enlarged glands were found along the aorta at the pelvic brim. They were not visibly affected with malignant disease. Liver was fatty and congested. It contained no secondary deposits.

Spleen: There were no signs of disease. Kidneys, Pancreas, Stomach, Intestines and Heart were free from disease. Uterus was much enlarged. Os patulous easily admitting gloved finger which passed into a large cavity filled with blackish somewhat offensive material. It was practically converted into a thin walled sac. Ovaries and Tubes appeared free from disease.

Thorax: There were some adhesions in both pleural cavities due to masses of new growth in the lungs which formed adhesions to the parietes. The Lungs were studded with nodules of new growth mostly cherry red in color, some slightly umbilicated. They were scattered indifferently about the lungs but in places contiguous portions of adjacent lobes were affected. On section the growth was reddish in color somewhat mottled and in several of the nodules beside the reddish mass was a small nodule of a brownish grey color.

2. This case was reported by Dr. F. J. McCann⁴⁵ at a meeting of the Obstetrical Society of London on October 8th 1902.

M.D. aged 53 years, a sallow-complexioned woman, was admitted into the Samaritan Hospital on March 21st 1902.

Complaint: A red discharge for five months.

History: She had had ten children. Her last pregnancy nine years previously, terminated at the third month. Eighteen months before her admission into hospital the menstrual periods ceased and no loss of blood was noticed until October 1901, when a sudden gush of blood came from the vagina followed by a continuance of the flow for one day. The haemorrhage was alarming and difficult to control. This free bleeding recurred every four or five days until three weeks before her admission when only a brown discharge was

45. McCann. The Journal of Obstet. & Gynaecology. March 1903
p.p 215-217.

noticed. The loss of blood necessitated her confinement to bed. She had no pelvic pain.

She had been losing flesh.

Examination: The uterus was found enlarged to about the size of a three months' pregnancy. The enlargement was uniform and soft in consistence. It was freely moveable. A small fleshy polypus was growing from the external Os. Slight uterine haemorrhage followed the examination.

Under anaesthesia on March 24th 1902, the uterine cavity was explored. When an uterine sound was passed into the cavity blood poured out of the uterus. An iodoform gauze plug was employed to arrest the haemorrhage and the patient was returned to bed. Two days later vaginal hysterectomy was performed. The uterus was plentifully supplied with blood vessels and on removal its peritoneal aspect was bright red in color. On cutting into the uterus the appearance was most remarkable. The whole cavity was filled with blood clot and the uterine wall intensely vascular. The clots were both recent and of old standing. The latter dark in color being more numerous.

The growth as shown by microscopic examination exists between the blood clot and the uterine wall.

The patient's subsequent progress was unsatisfactory and she died on the sixth day from suppression of urine.

Post mortem Examination.

Kidneys showed early granular changes. The other

abdominal contents were normal. No secondary growth was found in the liver.

Thorax: The lungs were oedematous but contained no secondary growths.

Microscopic examination of the tissue existing between the blood clot and the uterine wall showed that it was permeated with strands of cells, some of which go into the uterine muscle. The remainder of the tissue was fibrin and clot. The cells nearest the uterine muscle are rounded with a distinct granular nucleus at places vacuolated. These cells are all lightly stained. This layer of rounded cells is more or less covered by elongated protoplasmic masses containing many nuclei rich in chromatin. They are all deeply stained.

Aetiology.

There is always the history of a pregnancy or a miscarriage or the discharge of a hydatidiform mole shortly before the onset of symptoms. It was supposed to occur only in young adults during the active childbearing period of life, but in the second case I have quoted the age of the patient was 53, and menstruation had ceased for eighteen months before her admission into the hospital.

Morbid Anatomy.

On examining the uterus we find a growth springing from some part of its cavity. Here again we may have

two types. According as the growth projects into the cavity of the uterus or infiltrates the muscular wall.

The upper part consists of blood clot old and recent. Deeper is the growth proper. Its surface feels raised, irregular and friable. It bleeds freely on being touched and shows considerable breaking down. Portions of the growth can be easily detached by the examining finger.

The growth may penetrate the entire thickness of the uterine wall.

Those different points are well seen in the accompanying photographs taken from the second case I have described.

Histological Appearance.

The superficial portion examined under the microscope shows necrosis with fibrin and blood-clot enclosed in irregular cavities.

Examination of the growth proper which lies between the blood clot and the uterine wall shows:-

1. Numerous large rounded or polyhedral cells lying in a reticulum. They have large nuclei, which show a marked intra-nuclear net work and many of the cells may contain two or more nuclei.
2. In other portions we see large multi-nucleated protoplasmic masses of all varieties of shape. The nuclei are mostly round or oval, are extremely rich in chromatin and stain deeply. The protoplasm is granular and may contain many vacuoles.

Symptoms and Physical Signs.

The leading symptom is profuse intermittent haemorrhage. The blood loss may be so free as to endanger the patient's life. This is followed by a dirty, watery and foul smelling discharge. Pelvic pain develops. The patient becomes very anaemic and profoundly prostrated. Owing to septic absorption cachexia is a marked feature.

In the vagina the blue-button secondary deposits are common. They are soft, friable, bleed easily and generally ulcerated. Metastatic deposits which are common in the lungs may tend to haemoptysis.

The uterus is enlarged and soft in consistence. The cervix is generally enlarged, soft and patulous. By the speculum the blood and discharge are seen to come from the cervical canal.

Digital examination of the interior of the uterus reveals a raised irregular and friable area which bleeds freely on being touched.

Diagnosis.

There is the history of a previous pregnancy or miscarriage or the discharge of a hydatid mole followed by profuse intermittent haemorrhages and later by a foetid watery discharge.

It differs from the ordinary Carcinoma of the Body in the severity of its symptoms. The haemorrhage is so acute and persistent as to endanger the patient's life.

The subject is markedly anaemic and prostrated, a marked contrast to one suffering from Carcinoma, who is generally of a healthy color and does not feel ill.

Great interest is attached to the second case from the fact that she was past the menopause. This of course does not necessarily exclude the passing of a mole at some previous period.

If the uterus has been curetted and no evidence be found in the scrapings and should the haemorrhages return, thorough dilatation of the uterine canal must be done and the interior of the uterus examined.

Portions of the growth can be detached by the finger and examined microscopically such an examination would reveal:-

1. The large round nucleated cells.
2. The multi-nucleated protoplasmic masses which are pathognomonic.

Prognosis.

The disease is a rapid one and it invades the blood vessels so that secondary deposits in the internal organs are common. It is so highly malignant that most patients die within six months after the appearance of the symptoms. The prognosis therefore, is grave and it is only in the earliest stage that there is any hope of removing the disease.

Treatment.

The only treatment of any avail is immediate and total extirpation of the uterus by one of the methods already described. It should only be performed when the disease has not extended into the adjoining tissues and there is no sign of metastatic deposits locally or in the internal organs.

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DRAWINGS TO ILLUSTRATE M. D. THESIS
on
PRIMARY CARCINOMA OF THE BODY OF THE UTERUS.

by
Reginald O. Petrie.

M.A., (St.A.), M.B., C.M. (Edin.) 1892.





Papillomatous Type of Carcinoma.

PLATE II.

This is a black and white drawing of the condition found in the uterus in the Museum of the Royal College of Surgeons, London, to which reference has been made. It shows a diffuse villous growth filling the whole uterine cavity and spreading down the cervical canal. The uterine walls are infiltrated by the growth and are markedly thinned. In one or two places are seen rounded projections where thickening has taken place.



Diffuse Type of Carcinoma.

PLATE III.

This is a photograph of one half of the uterus taken from the case of Deciduoma Malignum after the menopause reported by McCann.

It shows a large mass of blood clot which fills the uterine cavity. The surface of the clot is irregular and lobulated. On the right the posterior uterine wall is seen to be markedly thinned from the invasion of the growth. The cervical canal is free from disease.



Deciduoma Malignum.

FIG. I.

This is a drawing of a microscopic section under the low power (1") of the Carcinoma found in the uterus of S.B. It is a section through the superficial part of the growth. It shows all over the field rounded spheroidal cells which show little tendency to form glands although at the lower part of the right half of the field there is a faint gland-like arrangement. The field may be looked upon as a large sea of epithelial cells partially divided into smaller areas by the stems of stroma. The latter is scanty and in parts is infiltrated by small round cells.

FIG. II.

This is a drawing of a microscopic section of an Adeno.Carcinoma under the low power (1").

It shows large groups of glands, irregularly crowded together and convoluted, lying in the muscle. Transverse, longitudinal and oblique sections of glands are seen. The gland epithelium has undergone proliferation and is several layers in thickness. The interglandular stroma has practically disappeared. There is marked small round cell infiltration between the glands and in the muscular stroma.

FIG. III.

This is a drawing of a microscopic section of a Squamous-cell Carcinoma under the low power (1").

It shows masses of large flattened squamous cells which are transverse longitudinal or oblique sections of the papillary processes. In the lower left hand corner the cells in the centre of one mass have dropped out so that it has a gland-like appearance. The intervening tissue is muscular stroma and it shows marked small round cell infiltration.



Fig. I.



Fig. II.



Fig. III.

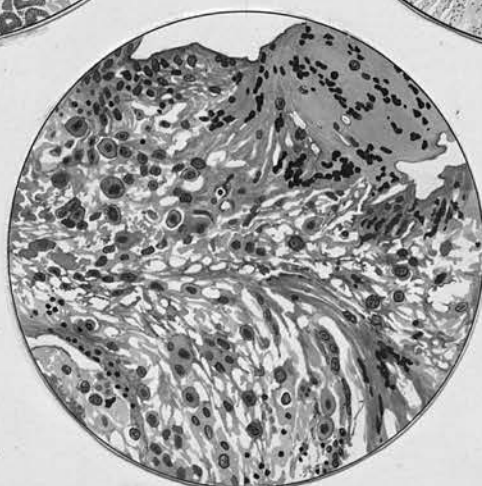


Fig. IV.